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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,364	02/06/2002	Emck Sadot	501055-A-01-US(Sadot)	2558
7590 Brian Dinicola Avaya Inc. 307 middletown-lincroft Road Room 1M-338 Lincroft, NJ 07738			EXAMINER ANYA, CHARLES E	
			ART UNIT 2194	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/072,364

Applicant(s)

SADOT, EMEK

Examiner

Charles E. Anya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

### **DETAILED ACTION**

1. Claims 1-51 are pending in this application.
2. In view of the Appeal Brief filed on 10/27/2006, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 5,34 and 38-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to**

**reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.**

The instance application's specification is not reasonably described to convey that the "cost" used to determine a server to be selected is money related. Examiner's careful review of the instance application's specification reveals that the "cost" used in determining a server to be selected is communication related. The Examiner would therefore, as a result and for the purpose of this office action interpret the "cost" as communication related.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**4. Claims 1-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

- a. "...a load balancer **not associated** with the virtual server..." on line 3 of claim 1.
- b. "...the loader balancer closer to the client than to the selected server..." on line 6 of claim 24.

These limitations do not particularly point out and clearly claim the subject matter of the invention and as such, ambiguous. For instance, for the load balancer to be able

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to select the virtual server, the load balancer must some how be associated with the virtual server. At least, there has to be a connection association between the load balancer and the virtual server before the load balancer could select the virtual server and secondly, how close is "closer".

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5. Claims 1-7,13-17,24-33,35-37,41,42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 7,047,301 B2 to Skene et al. in view of U.S. Pat. No. 6,182,139 B1 to Brendel.**

6. As to claim 1, Skene teaches a method of selecting a server to represent a virtual server hosted by a plurality of servers, comprising: providing, by a load balancer not associated with the virtual server, values for one or more parameters, of two or more paths, each path defined between a point in a vicinity of a client accessing the virtual server and one of the plurality of servers representing the virtual server (EDNS Server 160 "...round trip time...hops..." Col. 5 Ln. 18 – 28); and selecting a server to provide data for the client, responsive to the values of the one or more parameters ("...EDNS

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server determines which virtual servers..." Col. 2 Ln. 30 – 38, Block 710 Col. 11 Ln. 50 – 67, Col. 12 Ln. 1 – 13, Block 930 Col. 13 Ln. 45 – 50).

Skene is silent with reference to the load balancer comprises a client-controlled load balancer that directly selects said one of the plurality of servers representing the virtual server based on said one or more parameters.

Brendel teaches the load balancer comprises a client-controlled load balancer that directly selects said one of the plurality of servers representing the virtual server ("...load-balancer module in the client machine...make a server assignment..." Col. 4 Ln. 62 – 67, Col. 5 Ln. 1 – 35).

It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the system of Skene with the teaching of Brendel because the teaching of Brendel would improve the system of Skene by allowing for client-side load balancing that is transparent to high-level user applications (Brendel Col. 5 Ln. 18 – 19).

7. As to claim 2, Brendel teaches a method according to claim 1, wherein the load balancer and the client are in the same metropolitan area (Col. 5 Ln. 1 – 19).

8. As to claim 3, Brendel teaches a method according to claim 1, wherein the load balancer and the client are in the same local area network (Col. 5 Ln. 1 – 19).

9. As to claim 4, Skene teaches a method according to claim 1, wherein the one or more parameters comprise at least one of a jitter, a round trip delay or a hop count "...round trip time...hops..." Col. 5 Ln. 18 – 28).

10. As to claim 5, Skene teaches a method according to claim 1, wherein the one or more parameters comprise a cost ("...loading balancing metrics..." Col. 5 Ln. 18 – 43).

11. As to claim 6, Brendel teaches a method according to claim 1, wherein selecting the server comprises selecting, by a client-controlled load balancer, responsive to receiving identification of a virtual server requested by the client ("...URL..." Col. 5 Ln. 1 – 35).

12. As to claim 7, Brendel teaches a method according to claim 6, wherein selecting the server comprises selecting, by a client-controlled load balancer, responsive to receiving a connection establishment request from the client ("...connection..." Col. 5 Ln. 1 – 35).

13. As to claim 13, Skene teaches a method according to claim 1, further comprising transmitting an IP address of the selected server to the client ("...IP address... to the client..." Col. 12 Ln. 1 – 6).

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14. As to claim 14, Skene teaches a method according to claim 13, wherein transmitting the IP address of the selected server to the client comprises transmitting a DNS response (“...IP address... to the client...” Col. 12 Ln. 1 – 6).

15. As to claim 15, Skene teaches a method according to claim 1, wherein ones of the plurality of servers are located in different geographical regions (figure 1 Col. 4 Ln. 25 – 32, Col. 8 Ln. 57 – 67).

16. As to claim 16, Skene teaches a method according to claim 1, wherein selecting a server to provide data for the client comprises selecting, by the load balancer, a second load balancer which is to perform the server selection and selecting, by the second load balancer, a server to provide data for the client (Virtual ENDS Server 160/SACs 1/101 Col. 12 Ln. 1 – 14).

17. As to claim 17, Skene teaches a method according to claim 1, wherein the virtual server hosts a web site (“...web site...” Col. 4 Ln. 14 – 18).

18. As to claim 24, Skene teaches a method of selecting a server to be accessed, comprising: receiving, by a load balancer, a message relating to a virtual server, hosted by a plurality of servers (“LDNS server requests...” Col. 2 Ln. 30 – 39, figure 7 Col. 11 Ln. 50 – 67, Col. 12 Ln. 1 – 14), and to a client desiring to receive data from the virtual server (“...client’s request...” Col. 11 Ln. 57 – 67); and selecting, by the load balancer,



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one of the plurality of servers to provide data to the server (“...EDNS server determines...” Col. 2 Ln. 30 – 39, Block 710 Col. 11 Ln. 57 – 67, Col. 13 Ln. 45 – 50, Col. 14 Ln. 39 – 42).

Skene is silent with reference to the load balancer is closer to the client than to the selected server, and wherein the load balancer comprises a client-controlled load balancer that directly selects said one of the plurality of servers representing the virtual server based on said one or more parameters.

Brendel teaches the load balancer being closer to the client than to the selected server, and wherein the load balancer comprises a client-controlled load balancer that directly selects said one of the plurality of servers representing the virtual server (“...load-balancer module in the client machine...make a server assignment...” Col. 4 Ln. 62 – 67, Col. 5 Ln. 1 – 35).

It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the system of Skene with the teaching of Brendel because the teaching of Brendel would improve the system of Skene by allowing for client-side load balancing that is transparent to high-level user applications (Brendel Col. 5 Ln. 18 – 19).

19. As to claim 25, Brendel teaches a method according to claim 24, wherein the load balancer is closer to the client than to any of the plurality of servers hosting the virtual server (“...load-balancer module in the client machine...make a server assignment...” Col. 4 Ln. 62 – 67, Col. 5 Ln. 1 – 35).

20. As to claims 26 and 27, see the rejection of claims 2 and 3 respectively.
21. As to claim 28, Skene teaches a method according to claim 24, wherein the load balancer is not associated with the virtual server (Virtual EDNS Server 160).
22. As to claim 29, Brendel teaches a method according to claim 24, wherein the load balancer is under control of a system manager of the client (“...load-balancer module in the client machine...make a server assignment...” Col. 4 Ln. 62 – 67, Col. 5 Ln. 1 – 35).
23. As to claim 30, Skene teaches a method according to claim 24, wherein receiving the message comprises receiving a DNS query message (“LDNS server requests...” Col. 2 Ln. 30 – 38).
24. As to claim 31, Skene teaches a method according to claim 24, wherein receiving the message comprises receiving from a DNS server (“LDNS server requests...” Col. 2 Ln. 30 – 38).
25. As to claim 32, Brendel teaches a method according to claim 24, wherein receiving the message comprises receiving a connection establishment request directed to the virtual server (“...connection...” Col. 5 Ln. 1 – 35).

26. As to claim 33, Skene teaches a method according to claim 24, wherein receiving the message comprises receiving a message directed to the load balancer ("LDNS server requests..." Col. 2 Ln. 30 – 38).

27. As to claim 35, Skene teaches a method according to claim 24, wherein selecting one of the servers comprises selecting a server which has a lowest delay path or a highest packet size path to the load balancer ("...packet rate..." Col. 5 Ln. 18 – 43).

28. As to claim 36, Brendel teaches a method according to claim 24, wherein the load balancer is geographically closer to the client than to the selected server ("...load-balancer module in the client machine...make a server assignment..." Col. 4 Ln. 62 – 67, Col. 5 Ln. 1 – 35).

29. As to claim 37, Skene teaches a method of selecting a server to be accessed, comprising: receiving, by a load balancer, a message relating to a virtual server, hosted by a plurality of servers ("LDNS server requests..." Col. 2 Ln. 30 – 39, figure 7 Col. 11 Ln. 50 – 67, Col. 12 Ln. 1 – 14), and to a client desiring to receive data from the virtual server ("...client's request..." Col. 11 Ln. 57 – 67); and selecting, by the load balancer, one of the plurality of servers to provide data to the client, at least partially responsive to the cost of communications between the client and one or more of the plurality of servers ("...loading balancing metrics..." Col. 5 Ln. 18 – 28).

Skene is silent with reference to the load balancer comprises a client-controlled load balancer that directly selects said one of the plurality of servers representing the virtual server based on said one or more parameters.

Brendel teaches the load balancer as comprising a client-controlled load balancer that directly selects said one of the plurality of servers representing the virtual server ("...load-balancer module in the client machine...make a server assignment..." Col. 4 Ln. 62 – 67, Col. 5 Ln. 1 – 35).

It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the system of Skene with the teaching of Brendel because the teaching of Brendel would improve the system of Skene by allowing for client-side load balancing that is transparent to high-level user applications (Brendel Col. 5 Ln. 18 – 19).

30. As to claim 41, Skene teaches a load balancer, comprising: an interface adapted to receive server access messages from clients ("LDNS server requests..." Col. 2 Ln. 30 – 39, figure 7 Col. 11 Ln. 50 – 67, Col. 12 Ln. 1 – 14); and a processor adapted to determine, for at least one of the messages, whether the message requires load balancing responsive to at least one attribute different from the identity of the server referenced by the message ("EDNS server determines..." Col. 2 Ln. 30 – 38, EDNS Server 160 Col. 5 Ln. 18 – 43), and to select for at least one message determined to require load balancing, a server to service the client ("EDNS server determines..." Col. 2 Ln. 30 – 38, Block 710 Col. 11 Ln. 57 – 67, Col. 12 Ln. 1 – 14).

Skene is silent with reference to the processor comprising a client-controlled processor that directly selects the server to service the client based on the at least one attribute.

Brendel teaches the processor comprising a client-controlled processor that directly selects the server to service the client based on the at least one attribute (“...load-balancer module in the client machine...make a server assignment...” Col. 4 Ln. 62 – 67, Col. 5 Ln. 1 – 35).

It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the system of Skene with the teaching of Brendel because the teaching of Brendel would improve the system of Skene by allowing for client-side load balancing that is transparent to high-level user applications (Brendel Col. 5 Ln. 18 – 19).

31. As to claim 42, Skene teaches a load balancer according to claim 41, wherein the at least one attribute comprises the time at which the message is received at the interface (“...round trip time...” Col. 5 Ln. 18 – 28).

32. As to claim 44, Skene teaches a load balancer according to claim 41, wherein the at least one attribute comprises a protocol to govern the communication with the server (“...load balancing metrics...” Col. 5 Ln. 18 – 35).

**33. Claims 8-10,18-23,34,38-40,43 and 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2001/0047415 A1 to Skene et al. in view of U.S. Pat. No. 6,182,139 B1 to Brendel as applied to claim 6 above, and further in view of U.S. Pat. No. 6,249,801 B1 to Zisapel et al.**

34. As to claim 8, Brendel and Skene are silent with reference to a method according to claim 6, wherein providing the values for the one or more parameters comprise measuring at least one of the parameters.

Zisapel teaches a method according to claim 6, wherein providing the values for the one or more parameters comprises measuring at least one of the parameters (Col. 6 Ln. 50 - 55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Brendel and Skene with the teaching of Zisapel because the teaching of Zisapel would improve the system of Brendel and Skene by providing access to the closest or best suited server to service a client request (Zisapel Col. 6 Ln. 50 - 55).

35. As to claim 9, Zisapel teaches a method according to claim 8, wherein measuring at least one of the parameters, for at least one of the paths, is performed before receiving the connection establishment request (Proximity Table 54 Col. 6 Ln. 35 - 39).

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36. As to claim 10, Zisapel teaches a method according to claim 8, wherein measuring at least one of the parameters for at least one of the paths is performed after receiving the connection establishment request (Col. 6 Ln. 50 - 55).

37. As to claim 18, Zisapel teaches a method according to claim 1, wherein selecting a server to provide data for the client comprises selecting a server which minimizes a function of the one or more parameters ("...weighting..." Col. 7 Ln. 17 - 34).

38. As to claim 19, Zisapel teaches a method according to claim 18, wherein selecting a server to provide data comprises choosing a function of the one or more parameters to be minimized and selecting a server which minimizes the chosen function (Col. 7 Ln. 17 - 42).

39. As to claim 20, Skene teaches method according to claim 19, wherein the function is chosen responsive to a protocol with which the virtual server is accessed ("...load balancing metrics..." Col. 5 Ln. 18 - 43).

40. As to claim 21, Skene teaches method according to claim 19, wherein the function is chosen responsive to the virtual server accessed ("...load balancing metrics..." Col. 5 Ln. 18 - 43).

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41. As to claim 22, Zisapel teaches a method according to claim 19, wherein the function is chosen responsive to all attribute of the client (Col. 7 Ln. 17 - 34).

42. As to claim 23, Skene teaches a method according to claim 19, wherein the function is chosen responsive to the time of the selection (“...load balancing metrics...” Col. 5 Ln. 18 – 43).

43. As to claim 34, Zisapel teaches a method according to claim 24, wherein selecting one of the servers comprises selecting a server which has a lowest cost path to the load balancer (“...lowest total weighted...” Col. 7 Ln. 17 - 34).

44. As to claim 38, Zisapel teaches a method according to claim 37, wherein selecting one of the servers comprises selecting a server under a constraint that a lowest cost client communication connection is used in connecting to the server (“...lowest total weighted...” Col. 7 Ln. 17 - 34).

45. As to claim 39, Zisapel teaches a method according to claim 37, wherein selecting one of the sewers comprises selecting a server which minimizes a weighted sum of communication costs to the server and at least one other route related parameter (“...hop...TTL...” “...weighting...” Col. 7 Ln. 6 – 34).



46. As to claim 40, Zisapel teaches a method according to claim 39, wherein selecting one of the sewers comprises selecting a server which minimizes a weighted sum of the communication costs to the server and the round trip delay to the server (“...latency...” “...weighting...” Col. 7 Ln. 6 - 34).

47. As to claim 43, Zisapel teaches a load balancer according to claim 41, wherein the at least one attribute comprises the identity of the client (Request 28 Col. 5 Ln. 32 – 38).

48. As to claim 47, Skene teaches a method of selecting a server to be accessed, comprising: receiving, by a load balancer, a message relating to a virtual server, hosted by a plurality of servers, and to a client desiring to receive data from the virtual server (“LDNS server requests...” Col. 2 Ln. 30 – 39, figure 7 Col. 11 Ln. 50 – 67, Col. 12 Ln. 1 – 14); and choosing a function from a plurality of predetermined functions utilized by the load balancer for selecting servers, responsive to the received message (“...load balancing metrics...” Col. 5 Ln. 18 – 43, Block 930 Col. 13 Ln. 45 – 50).

Skene is silent with reference to selecting, by the load balancer, one of the plurality of servers that minimizes or maximizes the chosen function, to provide data to the client and a load balancer comprising a client-controlled load balancer that directly selects said one of the plurality of servers representing the virtual server that minimizes or maximizes the chosen function.

Brendel teaches a load balancer comprising a client-controlled load balancer that directly selects said one of the plurality of servers representing the virtual server that minimizes or maximizes the chosen function ("Minimizing latency..." Col. 3 Ln. 1 – 17, "...load-balancer module in the client machine...make a server assignment..." Col. 4 Ln. 62 – 67, Col. 5 Ln. 1 – 35).

Zisapel teaches selecting, by the load balancer, one of the plurality of servers that minimizes or maximizes the chosen function, to provide data to the client ("...weighting..." Col. 7 Ln. 17 - 34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Brendel and Skene with the teaching of Zisapel because the teaching of Zisapel would improve the system of Brendel and Skene by providing access to the closest or best suited server to service a client request (Zisapel Col. 6 Ln. 50 - 55).

49. As to claim 48, Zisapel teaches a method according to claim 47, wherein choosing the function comprises choosing responsive to an identity of the client (Request 28 Col. 5 Ln. 32 –38).

50. As to claim 49, Skene teaches method according to claim 47, wherein choosing the function comprises choosing responsive to a time at which the message is received ("...round trip time..." Col. 5 Ln. 18 – 28).

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51. As to claim 50, Skene teaches a method according to claim 47, wherein at least two of the predetermined functions depend on different groups of one or more parameters (“...load balancing metrics...” Col. 5 Ln. 18 – 43).

52. As to claim 51, Zisapel teaches a method according to claim 47, wherein at least two of the predetermined functions depend on the same parameters but give different weight to one or more of the parameters on which they depend (Col. 7 Ln. 17 – 34).

**53. Claims 11,12,45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 7,047,301 B2 to Skene et al. in view of U.S. Pat. No. 6,182,139 B1 to Brendel as applied to claims 1 or 41 above, and further in view of U.S. Pat. No. 6,389,462 to Cohen et al.**

54. As to claim 11, Brendel and Skene are silent with reference to a method according to claim 1, further comprising changing the destination IP address of packets received by the load balancer from the client, to an IP address of the selected server.

Cohen teaches a method according to claim 1, further comprising changing the destination IP address of packets received by the load balancer from the client, to an IP address of the selected server (“...proxy redirector...modified...” Col. 5 Ln. 12 – 36, “...translation...” Col. 8 Ln. 21 – 32).

It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the system of Brendel and Skene with the teaching of

Cohen because the teaching of Cohen would improve the system of Brendel and Skene by allowing a client to transparently establish a TCP connection with proxy cache (Cohen Col. 7 Ln. 12 – 17).

55. As to claim 12, Cohen teaches a method according to claim 1, further comprising changing the source IP address of packets received by the load balancer from the selected server (“...translates...” Col. 8 Ln. 35 – 52).

56. As to claim 45, Cohen teaches a load balancer according to claim 41, further comprising a packet changing unit adapted to change the contents of at least one field of packets belonging to connections for which load balancing was performed (“...proxy redirector...modified...” Col. 5 Ln. 12 – 36, “...translation...” Col. 8 Ln. 21 – 32).

57. As to claim 46, Cohen teaches a load balancer according to claim 45, wherein the packet changing unit is adapted to change packets in accordance with half NAT or full NAT procedures (Col. 8 Ln. 53 – 58, Col. 14 Ln. 21 – 45, Col. 15 Ln. 9 – 37).

### ***Conclusion***

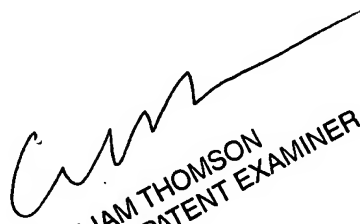
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Anya whose telephone number is 571-272-3757. The examiner can normally be reached on 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cea.

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER